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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,628	06/30/2004	Maya Benson	CE31103P	2975
22917	7590	10/05/2005	EXAMINER	
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			LAM, DUNG LE	
			ART UNIT	PAPER NUMBER
			2687	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/500,628

Applicant(s)

BENSON ET AL.

Examiner

Dung Lam

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 1 and 15 are objected to because of the following informalities:
2. Claim 1 and 15 cite "**the** measurement performance of the subscriber" even though there was no prior mentioning and should be corrected to --a measurement performance--.
3. Claim 1 and 15 also cite "determining a measuring performance characteristic of the subscriber unit related to the measurement performance of the subscriber unit". The repeating of the broad terms "measurement performance" in these claims makes it hard to hard to understand.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim **1-3, 13,15-16,25** are rejected under 35 U.S.C. 102(b) as being anticipated by **Almgren et al.** (WO Publication No. 97/32445).

6. Regarding **claim 1**, Almgren teaches a method of selecting carriers to be measured by a subscriber unit served by a cellular communication system and operable to measure carriers in a frequency band (see Col. 2-10):

determining a measuring performance characteristic of the subscriber unit related to the measurement performance of the subscriber unit when measuring carriers in the frequency band. Since "measuring performance characteristics of a subscriber unit" is a very broad term that can take on many interpretations such as the speed of a mobile, the type of mobile stations IS-54 or IS136, or signal strength (Col. 9 L17-20,

Art Unit: 2687

Col.2 L11-L22 and Col.6 L3-13). The examiner interprets it as a speed of the mobile which is used to generate a neighbor cell list to be measured since the speed is used it is inherently determined (Col. 9 L17-20, Col.31 L25 – Col.32 L2.)

and selecting a subset of carriers in the frequency band to be measured by the subscriber unit in response to the measuring performance characteristic (Col. 9, lines 17-20).

7. Regarding **claim 2**, Almgren and 3GPP2000 teach all the limitations of claim 1 (see claim 1 above). Almgren further teaches the step of transmitting identification of the subset of carriers to the subscriber unit (neighbor cell list transmitted to the mobile station, Col. 16, line 5-8).

8. Regarding **claim 3**, Almgren and 3GPP2000 teach all the limitations of claim 1 (see claim 1 above). Almgren further teaches the step of the subscriber unit measuring the carriers of the subset of carriers (Col. 16, lines 9-11).

9. Regarding **claim 13**, Almgren and 3GPP2000 teach all the limitations of claim 1 (see claim 1 above). Almgren further teaches the step of determining a handover candidate carrier from the subset of carriers (a method and system of this type would allow creation of a neighbor cell list that would contain the best possible candidate cells for handoff of a call, Col.7 line 18-20).

10. Regarding claims **15-16 and 25**, they are apparatus claims corresponding to the above method claims of 1, 2, and 14 respectively. Therefore, they are rejected for the same reasons as claims 1, 2, and 14 respectively (see claims 1, 2, and 14).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2687

12. Claim **4-9,11,14,17-24, 26-34** are rejected under 35 U.S.C. 103(a) as being unpatentable **Almgren et al.** (WO Publication No. 97/32445) in view of **ETSI TR 125 922 v3.4.0 2000-12** (simply denoted as "**3GPPStandard**").

13. Regarding **claim 4**, **Almgren** teaches all the limitations of claim 1 (see claim 1 above). However, **Almgren** fails to teach that the performance characteristic is indicative of the time required for the subscriber unit to measure carriers. In analogous art, **3GPPStandard** also teaches the same invention of measuring carriers for handover but emphasizes on newer technologies of 3G and 2G, where the number of intra-frequency cells which a mobile station is capable of measuring is dependent on the time available to perform these measurements (p. 18 section 5.1.6.1) and the time needed to perform measurements is based on the compressed mode parameters of a single-mode subscriber (p. 19 sections 5.1.6.2.1.1-5.1.6.2.2.1) which means the characteristics (type of receiver, single or dual) is indicative to the time required for the subscriber unit to measure carriers inter-frequency band. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify **Almgren's** teaching of performance characteristics to be indicative of the time required by a subscriber to make measurements as taught by **3GPPStandard**. Because knowing how long it takes to the subscriber to make a measurement would allow the network to have a better judgment of how many measurements a subscriber is really capable of measuring without being overloaded, thus the handoff measurement quality is increased.

14. Regarding **claim 5**, **Almgren** teaches all the limitations of claim 1 (see claim 1 above). However, **Almgren** fails to teach that the measuring performance characteristic is indicative of the number of receivers in the subscriber unit. In analogous art, **3GPPStandard** teaches a UE can do measurements in Compressed Mode if it has only one receiver and alternatively the receiver need not use Compressed Mode to perform measurements when it has a dual receiver, (P.14, Section 5.1.5.1-5.1.5.2.5 and 5.1.6.1). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify **Almgren's** teaching of performance characteristics to be indicative to number of receivers of the subscriber taught by **3GPPStandard**. Because knowing how many receivers a subscriber has would allow the network to have a better judgment of assigning the appropriate number of carriers that a subscriber can handle/measure without being overloaded, thus the handoff measurement quality is increased.

Art Unit: 2687

15. Regarding **claim 6**, **Almgren** teaches all the limitations of claim 1 (see claim 1 above). However, **Almgren** fails to teach that the frequency band is a frequency band of a second communication system. In an analogous art, 3GPP2000 teaches that in a handover process from 3G to 2G, inter-system needs to notify the UE of the existing GSM frequencies in the area (P. 14, section 5.1.5.1).

16. Regarding **claim 7**, **Almgren** teaches all the limitations of claim 1 (see claim 1 above). However, **Almgren** fails to teach that the cellular communication system and the second communication system use different radio access technologies. In an analogous art, 3GPP2000 teaches Inter Radio Access Technology Handover (P.14, Title of Section 5.1.5). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify **Almgren**'s teaching of measuring the carriers to also include the handover between different radio technologies because it would allow the system to be compatible with the new technologies and thus be more integrate-able.

17. Regarding **claim 8**, **Almgren** and 3GPP2000 teach all the limitations of claim 7 (see claim 7 above). 3GPP2000 further teaches the cellular communication system is a GSM communication system (**2G**) and the second communication system is a UMTS (**3G**) communication system (p14, section 5.1.5.2).

18. Regarding **claim 9**, **Almgren** and 3GPP2000 teach all the limitations of claim 7 (see claim 7 above). 3GPP2000 further teaches the communication system is a UMTS communication system and the second communication system is a GSM communication system (Handover 3G to 2G, page 14, section 5.1.5.1).

19. Regarding **claim 14**, **Almgren** teaches all the limitations of claim 1 (see claim 1 above). Although they fail to teach specifically that the performance characteristic is determined from the number of measurement reports reported from the subscriber unit within a given time interval, 3GPP2000 teaches that the number of cells which can be reported by the UE depends on the characteristics of the activated compressed mode patterns (Page 18, section 5.1.6). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to derive the performance characteristic (single or dual mode receiver) based on the number of the reports to select a re pertinent set of carriers to be measured.

20. Regarding claims **17 – 24**, they are apparatus claims corresponding to the above method claims of 4, 5, 6, 7, 8, 9, 10 and 13 spectively. Therefore, they are rejected for

Art Unit: 2687

the same reasons as claims 4, 5, 6, 7, 8, 9, 10 and 13 respectively (see claims 4, 5, 6, 7, 8, 9, 10 and 13).

21. Regarding **claims 27**, it teaches a subscriber unit that have the limitations corresponding to the above combined method claims of 1 and 3. Therefore, they are rejected for the same reasons as claims 1 and 3 (see claim 1 and 3 above).

22. Regarding **claims 28-33, and 34**, they are claims relating to a subscriber unit that corresponds to the above method claims of 4-9 and 13. Therefore, they are rejected for the same reasons as claims 4-9 and 13 respectively.

23. Claims **10 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Almgren et al.** (WO Publication No. 97/32445) in view of **ETSI TR 125 922 v3.4.0 2000-12** (simply denoted as "**3GPP2000**") and further in view of **Lupien** (US Patent No. 5857153).

24. Regarding **claim 10**, Almgren and 3GPP2000 teach all the limitations of claim 7 (see claim 7 above). However, they fail to teach that the size of the subset of carriers is dependent on the performance characteristic. In an analogous art, Lupien teaches that when a dual-band capable receive a neighbor list of both 800 and 1900 MHz while the mobile stations that only operates at the 800MHz receives only neighbor cells operating at 800MHz (Col. 6, lines 49-55). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made add the feature of measuring only the frequencies that the UE is capable of measuring to ensure high accuracy for handoff.

25. Regarding **claim 12**, Almgren teaches all the limitations of claim 1 (see claim 1 above). Lupien further teaches the limitations wherein the subset of carriers is an ordered subset of carriers and the order of carriers in the subset of carriers is dependent on the performance characteristic (neighbor cells indicated in a measurement order from the base station, Col. 6, lines 45-47).

Art Unit: 2687

Response to Amendment

Applicant's arguments, filed 8/3/05, with respect to the rejection(s) of claim(s) 1-34 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of **Almgren et al.** (WO Publication No. 97/32445) for claims 1-3, **13,15-16,25**.

Claim **4-9,11,14,17-24, 26-34** are rejected under 35 U.S.C. 103(a) as being unpatentable **Almgren et al.** (WO Publication No. 97/32445) in view of **ETSI TR 125 922 v3.4.0 2000-12** (simply denoted as "**3GPPStandard**").


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Lam whose telephone number is (571) 272-6497. The examiner can normally be reached on M-F 9 - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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